## DEPARTMENT OF THE ARMY

TO THE STATE OF TH

U.S. Army Corps of Engineers WASHINGTON, D.C. 20314-1000

REPLY TO ATTENTION OF:

CERE (100)

6 February 1995

## MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Real Estate Policy Guidance Letter No. 10 -- Requirements for Homeowners Assistance Program (HAP) Market Impact Studies in Metropolitan Areas.

- 1. Except as modified in this guidance, all Market Impact Studies shall comply with ER 405-1-12, Chapter 7, Section III, paragraph 7-8, and Addendum 2. This guidance identifies alternative methods which may be utilized in performing Market Impact Studies in metropolitan, and densely populated areas.
- 2. The basic purpose of all HAP impact studies is to demonstrate whether or not home prices have declined since the date of the announcement of the closure or realignment of a military installation and if so whether or not the announcement or closure was a significant factor in causing the reduction in prices. Focus must be on defined areas near an installation being closed or reduced in personnel, and address whether or not the announcement of the closure or reduction was a significant factor in causing the decline, if any occurred, in home prices. In order to support a credible conclusion, each impact study should contain the following information:
- a. Obtain a reliable estimate of the number of military and civilian homeowners affected by the announcement and what area or political jurisdiction they live in, including zip code. Obtain the number of occupied homes in each of the areas or political jurisdictions and calculate the percentage of employee homeowners in each area or jurisdiction. The higher the percentage of base employee homeowners to total homeowners, the more likely that the closure or reduction will have an adverse impact on the housing market in a given area. This information alone will provide some reasonable guidance as to what area(s) should receive additional study. If, for example, less than 1% of the homeowners in a given area are base employees, then it is less likely that the base closure announcement would have had an adverse impact on the housing market in that area.
- b. Obtain the number of homes listed for sale in each area being studied, for each of the three years preceding the announcement, and for the elapsed period subsequent to the announcement. If less than one year of data is available subsequent to the announcement, that data must be broken down

CERE (100) 6 February 1995 SUBJECT: Real Estate Policy Guidance Letter No. 10 --Requirements for Homeowners Assistance Program (HAP) Market Impact Studies in Metropolitan Areas.

into quarters or months. Likewise, the data preceding the announcement must be broken down into quarters or months. A significant increase in the number of listings after the announcement, as compared to the corresponding periods before the announcement, indicates that the announcement likely has had an adverse impact on the real estate market in the area.

- c. Obtain the number of homes sold in each area being studied for each of the three years preceding the announcement, and for the elapsed period subsequent to the announcement. If less than one year of data is available subsequent to the announcement, that data must be broken down into quarters or months. Likewise, the data preceding the announcement must be broken down into quarters or months. A significant decrease in the number of homes sold after the announcement, as compared to the corresponding periods before the announcement, indicates that the announcement likely has had an adverse impact on the real estate market in the area.
- d. Calculate and report the average number days on market for each area being studied, for each of the three years preceding the announcement, and for the elapsed period subsequent to the announcement. If less than one year of data is available subsequent to the announcement, that data must be broken down into quarters or months. Likewise, the data preceding the announcement must be broken down into quarters or months. A significant increase in the number of days on market after the announcement, as compared to the corresponding periods before the announcement, indicates that the announcement likely has had an adverse impact on the real estate market in the area.
- e. Obtain the number of residential building permits issued in each area being studied, for each of the three years preceding the announcement, and for the period subsequent to the announcement. If less than one year of data is available subsequent to the announcement, that data must be broken down into quarters or months. Likewise, the data preceding the announcement must be broken down into quarters or months. A significant decrease in the number of building permits after the announcement, as compared to the corresponding periods before the announcement, indicates that the announcement likely has had an adverse impact on the real estate market in the area.

CERE (100) 6 February 1995 SUBJECT: Real Estate Policy Guidance Letter No. 10 --Requirements for Homeowners Assistance Program (HAP) Market Impact Studies in Metropolitan Areas

- f. Obtain and report the number of FHA and VA foreclosures, tied as closely to the defined areas as possible, for the time periods indicated above.
- Multiple regression analysis, along with collection an analyses of the above required data, as a substitute for or in combination with actual appraisals of individual homes, may be utilized to help support a recommendation for a HAP program in densely populated areas. Where a considerable volume of sales data is available, multiple regression analysis can be used to analyze the market data, depict trends, estimate values, and to isolate or test the significance of specific value determinants. As a technique or tool, it's effectiveness depends on the knowledge and skill of the person(s) using it. The most important requirement of the technique is a large data base of sales of reasonably similar properties. There is no guarantee that a multiple regression analysis of a given data base of sales will give conclusive results. In particular, if the information in the data base is not accurate, then it is not possible for the regression analysis to give accurate results (garbage in = garbage out).
- 4. A study utilizing multiple regression analysis, must include the following information and processes:
- a. Obtain and analyze data of single family detached home sales that have occurred in each political jurisdiction located within described limits of the installation area, which occurred during the two years preceding the announcement of the closing (or realignment) of the installation. Additionally, obtain available sales of single family detached homes that have occurred since the announcement date. The data obtained and analyzed should include at least 85% of all open market, single family home sales located in each area, that have a reasonable degree of similarity to the selected subject properties for that area. If it is known or believed that a significant number of installation employees own single family attached housing units, then data for these should be gathered and analyzed separately.
- b. The data must include those items of information on each property sold that had a significant effect on the sale

CERE (100) 6 February 1995 SUBJECT: Real Estate Policy Guidance Letter No. 10 --Requirements for Homeowners Assistance Program (HAP) Market Impact Studies in Metropolitan Areas

price. For example, each sale utilized must include the sale price, sale date, square feet of living area, age, number of baths, and other variables that have a significant effect on sales price, e.g., number of garages, decks, pools, fireplaces, and so forth.

- c. The appraiser will analyze the data obtained utilizing stepwise multiple regression analysis to estimate the value of a hypothetical or actual house in each area with three dates of value for each house. These dates of value will be (1) one year before the announcement date, (2) the announcement date, and (3) the current date. Each estimate of value will be based on sales which have occurred in that area in the preceding 12 months, with the exception that the current value estimate will be based only on sales which have occurred after the announcement date. The data must be reviewed to determine the physical characteristics of each hypothetical or actual subject property.
- d. The data base for the first series of each valuation will be all sales of reasonably similar homes that have occurred in the area of that subject in the preceding twelve months. The data will be grouped by zip code areas, by city, or by Multiple Listing Identification Areas (as specific and as identifiable as possible), and divided into three time frames. A minimum of sixty (60) sales in each group should be included for the indications and valuations to be considered reliable.
- e. The results of the first series will be utilized to compute an "indicated value" of each comparable sale. The appraiser will calculate the percent error between the "indicated value" and the actual sales price of each comparable sale. Based on an analysis of these calculations, the appraiser will delete those comparables which have a significant error (say plus or minus 15%) between the estimated and actual sales price. The appraiser may also delete certain sales and not analyze a variable which is not common to a significant number of properties in the data base, e.g., eliminate sales which include pools. The appraiser will then utilize the revised data base to estimate the indicated value of each hypothetical or actual subject nome, in each area, for each time period as a second series of values.

CERE (100) 6 February 1995 SUBJECT: Real Estate Policy Guidance Letter No. 10 --Requirements for Homeowners Assistance Program (HAP) Market Impact Studies in Urban and Metropolitan Areas

- f. The finished report will contain, at a minimum the following:
  - (1) Tables summarizing the data obtained and analyzed.
- (2) Each value conclusion or indication and the number of records utilized, the Constant, Standard Error of the Estimate, R-Squared, Degrees of Freedom, X Coefficient, and Standard Error of the Coefficients.
- 5. The local Multiple Listing Service(s) will likely be the best source of information for the data base of residential sales. The data may be obtained and analyzed by either qualified staff personnel or contractors.
- 6. A recommended scope of work for contracting for this type of report is enclosed. A staff report should follow the same quidelines.

Encl

Director of Real Estate

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CERE (100) 6 February 1995 SUBJECT: Real Estate Policy Guidance Letter No. 10 --Requirements for Homeowners Assistance Program (HAP) Market Impact Studies in Urban and Metropolitan Areas

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## "SAMPLE" SCOPE OF WORK

1. Project Housing Market Impact (HAP) Study, (Installation name and state)

2. Location Area surrounding (Installation name and location) as described below

3. Type of Property Single Family Residential

4. Interest Analyzed Fee Simple

5. Multiple Regression Analysis

A single report will be furnished and will include data and analyses as described below.

6. Date of Valuation Three (3) different dates of analysis as described below (one year prior to the announcement, the date of announcement, and current date).

7. Purpose To depict changes in home prices, and to measure the extent of decline and adverse impacts (if any) in selected areas.

- 8. The appraiser will obtain the data, perform the analysis, and furnish four copies of a finished report which provides a summary of the data obtained, analysis performed and conclusions reached from the following study:
- a. The appraiser will obtain and analyze data of single family detached and attached home sales that have occurred in each political jurisdiction located in (describe limits of study area) which occurred during the two years preceding the announcement of the closing or realignment of (installation name), and available sales of single family homes that have occurred since that date. The data obtained and analyzed should include at least 85% of all open market single family home sales located in each area that have a reasonable degree of similarity to the selected subject properties for that area.
- b. The data must include those items of information on each property sold that had a significant effect on the sale price. For example each sale utilized must include the sale price, sale date, square feet of living area, age, number of

baths, and other variables that have a significant effect on sales price, e.g., number of garages, decks, pools, fireplaces, and so forth. If an area contains a significant number of sales of attached or condominium housing units, then these should be divided into separate data bases and analyzed separately.

- c. The data will be grouped by zip code areas, by city, or by Multiple Listing Identification Areas (as specific and identifiable as possible). Each area will be sorted into three time frames.
- d. The appraiser will analyze the data obtained utilizing stepwise multiple regression analysis to estimate the value of a hypothetical or actual house in each area with three dates of value for each house. These dates of value will be (1) one year before the announcement date, (2) the announcement date, and (3) the current date. Each estimate of value will be based on sales which have occurred in that area in the previous 12 months, with the exception that the current value estimate will be based only on sales which have occurred after the announcement date. The contractor will perform a preliminary review of the data to determine, with agreement with the Government's representative, the physical characteristics of each subject property.
- e. The data base for the first series of each valuation will be all sales of reasonably similar homes that have occurred in the area of that subject in the preceding twelve months. A minimum of sixty (60) sales should be included for each valuation.
- f. The appraiser will utilize the results of the first round to compute an "indicated value" of each comparable sale. The appraiser will calculate the percent error between the "indicated value" and the actual sales price of each comparable sale. Based on an analysis of these calculations the appraiser will delete those comparables which have a significant error (say plus or minus 15%) between the estimated and actual sales price. The appraiser may also delete certain sales and not analyze a variable which is not common to a significant number of properties in the data base, e.g., sales which include pools. The appraiser will then utilize the revised data base to estimate the indicated value of each hypothetical or subject home, in each area, for each time period as a second series of values.
- g. No physical inspections will be required under this contract.

- h. The finished report will contain, at a minimum the following:
  - (1) Tables summarizing the data obtained and analyzed.
- (2) Reporting of each value conclusion. And for each value conclusion; the number of records utilized, the Constant, Standard Error of the Estimate, R-Squared, Degrees of Freedom, X Coefficient, and Standard Error of the Coefficients.